AMSAT News Service Weekly Bulletins
Issue: ANS-041
Date: 2008-02-10
Sources: amsat-ans-2008-ans-041-weekly.txt

AMSAT NEWS SERVICE
ANS-041

ANS is a free, weekly, news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:
ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-041.01
ARISS-Europe Amateur Radio Antennas Reach Orbit

AMSAT News Service Bulletin 041.01
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.01

When the Shuttle Atlantis launched on Thursday, February 8 the European Space Agency's Columbus module was on its way for delivery at the International Space Station. The amateur radio antennas mounted on the exterior open a new phase of amateur radio in space. While it will take several months to complete the ham shack aboard the Columbus module the first step has been taken.

Frank Bauer, KA3HDO, ARISS International Chairman, and AMSAT-NA V.P. for Human Spaceflight Programs was quite pleased at this milestone and told the team, "I would like to extend my congrat-ulations to the ARISS-Europe team on today's successful launch of our newest on-orbit hardware delivery, the additional ARISS antennas!"

The ARISS-Europe team have been working hard and diligently for over 5 years to realize this outstanding milestone. The team faced numerous challenges, including some very severe environmental testing to get approval to fly these antenna systems.

Noting the international effort for this success, Frank continued, "I would like to thank Gaston Bertels, ON4WF for his outstanding leadership on this project and Dr. Pawel Kabacik at the Wroclaw University of Technology in Poland for his efforts in the antenna design and testing. And I would like to extend my sincere gratitude to all those who contributed to this project through their volunteer

efforts, financial contributions and/or in-kind contributions.
YOU helped us develop, test and fly these antennas."

For more information on the ARISS antennas, see:
http://www.ariss-eu.org/

[ANS thanks Frank, KA3HDO and ARISS for the above information]

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SB SAT @ AMSAT $ANS-041.02
AO-51 February Schedule

AMSAT News Service Bulletin 041.02
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.02

Drew KO4MA, AMSAT-NA VP Operations noted this week, "The AO-51 committee has completed a schedule for February. We will continue the V/US repeater mode that began on January 25th for all of February, except on Tuesdays through Thursdays when we will switch to L/US.

This pattern will repeat every week in February except that the mode switch from V/US to L/US on Tuesday the 12th will be delayed until Wednesday the 13th to accommodate a School Roundup event at Two Rivers School in North Bend, Washington.

The S-band downlink may be temporarily suspended for WOD telemetry download without notice. Generally this will only be for one pass per day.

Regarding the graphic schedule on the main AMSAT web page, the software that does the schedule will not allow for the proper display of the current modes. Please refer to:
http://www.amsat.org/amsat-new/echo/CTNews.php

February 2008 AO-51 (AMSAT Echo) Schedule

February 1 until February 29, subject to modification

February 8 - February 12
FM Repeater, V/US
Uplink: 145.920 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 13 - February 14
FM Repeater, L/US
Uplink: 1268.700 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 15 - February 18
FM Repeater, V/US
Uplink: 145.920 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 19 - February 21
FM Repeater, L/US
Uplink: 1268.700 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 22 - February 25
FM Repeater, V/US
Uplink: 145.920 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 26 - February 28
FM Repeater, L/US
Uplink: 1268.700 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

February 29 - TBD
FM Repeater, V/US
Uplink: 145.920 MHz FM, NO PL Tone
Downlinks: 435.300 and 2401.200 MHz FM

[ANS thanks the AO-51 Operations Committee for the above information]

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SB SAT @ AMSAT $ANS-041.03
ARISS Observes SuitSat-1 Anniversary

AMSAT News Service Bulletin 041.03
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.03

In marking the 2nd anniversary of the deployment of SuitSat-1
/Radioskaf/AO-54 from the ISS this week, Frank Bauer, KA3HDO,
ARISS International Chairman, and AMSAT-NA V.P. for Human Space-
flight Programs said, "I want to take this opportunity to thank
all the volunteers around the world that supported the SuitSat-1
development, deployment, public outreach and ground station
reception." Frank said the SuitSat certificates have been mailed
as of this past week.

2008 brings new opportunities to you, the hams interested in ARISS,
which includes:

+ Plans to commemorate the 25th anniversary of human spaceflight
  ham radio operation---the flight of Owen Garriott, W5LFL on the
  space shuttle Columbia, STS-9 in 1983.

+ A team of dedicated amateur radio operators is working to bring
  SuitSat-2 to reality. At this point in time, it is not clear
  when it will be deployed, but we are working feverishly to have
  it ready for deployment before the end of the year.

+ We expect to have significant ARISS crew amateur radio partici-
  pation starting in the October 2008 timeframe with the launch
  of the Expedition 18 crew and Soyuz taxi flight.

Frank wraps up with, "I thank all of you for your interest in ARISS.
This program is truly inspirational for students, the ham radio
community, and the communities surrounding the schools that have
been touched by the 334 (to date) school contacts conducted since
December 2001."

[ANS thanks Frank, KA3HDO and ARISS for the above information]

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SB SAT @ AMSAT $ANS-041.04
AO-51 Satellite Cardboard Model Prototype Assistance Requested

AMSAT News Service Bulletin 041.04
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.04

Stefan, VE4NSA has finished the 1st prototype of an AO-51 cardboard model design and would like to give a few dedicated individuals the opportunity to actually build the model and help him with the final design and the necessary instructions.

Stefan notes, "At this stage I will need individuals that have built cardboard models (ships, airplanes, rockets etc.) before and don't need detailed instructions but know the tools that are required to assemble such a model."

Pictures of the current prototype can be seen at:
http://www.msig.ca/model.html

It is still a work in progress and hopefully will end up as a product that AMSAT can offer for a donation. I designed the model in a 1:1 scale but for the purpose of this project it has been reduced to 75% size. This will allow builders to print it on regular size photo paper and still have a beautiful model for display in the shack, school projects, or amateur radio presentations.

Building the model will require time, patience and a color printer since the model is distributed as pdf files. This form of distribution will save paper and will allow you to print it as many times as you need.

As mentioned above, Stefan is looking for up to five test builders (with experience) that are willing and able to finish the model in four to five weeks. It is not a two hour project and dedication to detail and exact cutting and gluing is required. Those that help and provide him with updates on their progress and final feedback will get the final distribution files as well as the model files in a 1:1 scale.

Send Stefan an email <callsign>@amsat.org if you are interested!

[ANS thanks Stefan, VE4NSA for the above information]

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SB SAT @ AMSAT $ANS-041.05
AMSAT Presence at Orlando Hamcation This Weekend

AMSAT News Service Bulletin 041.05
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.05

This weekend AMSAT will have a large presence at the Orlando Hamcation. It will remind some people of Dayton. The Orlando Hamcation has grown in size and prominence in the U.S. After all, it is in a "horrible place" for Winter in the U.S.! See: http://www.hamcation.com/

The following AMSAT board members and officers will be there:

AMSAT President Rick Hambly, W2GPS
AMSAT President Emeritus, Tom Clark, K3IO (ex-W3IWI)
AMSAT Executive V.P. Lee McLamb, KU4OS
AMSAT V.P. Operations, Drew Glasbrenner, KO4MA
AMSAT V.P. Field Ops, Gould Smith, WA4SXM
AMSAT V.P. Engineering Bob McGwier, N4HY

Some of the above are board members. Additionally, board members
Lou McFadin, W5DID and Barry Baines, WD4ASW will be in attendance.
Barry Baines is our new Eagle/Intelsat project manager.

AMSAT has been granted prominent times and rooms for presentations.
AMSAT is bringing the operational SDX and will soon thereafter put
an SDX based linear transponder on the air covering much of the
state of Florida and in a prominent place in Maryland. Additionally,
one of the SDX will be in use in Europe thanks to a generous offer
and help from Viktor Kudielka.

Taking advantage of the occasion, AMSAT will hold engineering planning
meetings in Orlando this weekend for engineering management. This was
decided because so many of these people were going to be in attendance
anyway.

[ANS thanks Bob, N4HY AMSAT-NA VP Engineering for the above information]

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SB SAT @ AMSAT $ANS-041.06
FO-29 Status

AMSAT News Service Bulletin 041.06
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.06

Toyo Komatsu, JA0CQP provided an update on behalf of JARL in
regards to the status of the FO-29 satellite. JARL is the
agency responsible for FO-29 operation.

While command and control and some transponder operation has
been recovered over Japan, JARL notes at this time FO-29 is not
in condition to offer worldwide service with control stations
around the world.

The satellites power budget is a key issue. Although power from
the solar cells is just adequate for operation, the inner impedance
of the Ni-Cd rechargeable batteries is increasing. They cannot
support operation of the transmitter approximately 10 minutes after
entering eclipse.

The PCU (Power Control Unit) has failed and the satellite's trans-
mitter does not automatically recover, requiring intervention by
the ground control station in Tokyo.

JARL will continue to monitor the situation aboard FO-29 and preserve
its functionality for as many as users around the world as possible.
This situation may continue for up to 2 years until FO-29 enters a
no-eclipse period in 2010.

[ANS thanks Toyo Komatsu, JA0CQP for the above information]

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SB SAT @ AMSAT $ANS-041.07
Satellite Shorts From All Over

AMSAT News Service Bulletin 041.07
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.07

+ AMSAT Engineering needs experienced help programming the MPS-430. This processor will be in a Cubesat. The preference is to use FreeRTOS on it but adequate reasons for not following this path can be discussed. Email to n4hy@amsat.org directly.

+ JAMSAT (Japan-AMSAT) announced that QSL cards for QSOs via ISS Cross Band Repeater are valid for the "JAMSAT 5 Stars Award".

+ The 2008 Microwave Update is being planned for the weekend of October 17-18-19 in the Minneapolis area.

+ The dates for the AMSAT-UK Colloquium are July 25,26,27, 2008.

+ The University of Louisiana is asking for a volunteers to help mentor a senior design capstone project to design and test to destruction with high dose of radiation a communication control and data handling processor. This processor is planed to fly on the CAPE II satellite on 2009. It is anticipated that this will involve two one hour session a month via WEB X. We are seeking those have skill in designing fault tolerant microprocessors and have knowledge of how high energy particles effect memory chips. Contact k5qxj@amsat.org.

+ W5ACM, W5GFP, WA5TWT, WA5WOD, N5RPQ and WB5RMA finished up a cruise to the western Caribbean. Over 90 QSOs were made using call W5ACM/MM from the Carnival Conquest. Some AO-16 passes with excellent results. Most of the contacts were via AO-51 but they were amazed at the signal strength of the AO-16 downlink. It was REALLY EXCELLENT!!

+ The launch of the NLS-4 cluster including Delfi-C3 has been delayed again, for now, it is scheduled for mid-April. Updates will be post-ed on the Delfi mission status page.

+ PB and PG for Linux are programs used for download from and upload to digital satellites (Pacsats) supporting the FTL0 protocol. This software allows you to directly communicate with the Microsat series of satellites. Release 2.2.1 of PB/PG for Linux is now available from ftp.amsat.org /amsat/software/Linux/pbpg-2.2.1.tar.gz (via oz6bl (at) amsat (dot) org)

+ Would you like to name the next great space telescope? Here's your chance: NASA is inviting members of the general public to suggest a new name for the Gamma-ray Large Area Space Telescope before it launches in mid-2008. See:

http://science.nasa.gov/headlines/y2008/08feb_namethattelescope.htm?list958901
Anyone who drops a name into the "Name That Satellite!" suggestion box on the Web page can choose to receive a "Certificate of Partici-pation" via return e-mail. Participants also may choose to receive the NASA press release announcing the new mission name. The announce-

ment is expected approximately 60 days after launch of the telescope.

+ Clint Bradford, K6LCS has secured an AMSAT member deal from HRO on the Arrow satellite antenna with duplexer: Model 146/437-10WBP for $125.95. That's about $10-15 off suggested retail. Offer good through February. Contact k6lcs@amsat.org.

+ AMSAT needs volunteers to "man" the AMSAT booth at Timonium, one of the largest amateur radio shows on The East Coast. The dates are March 29 and March 30 at the Maryland State Fairgrounds in Timonium, Md. See: http://www.gbhc.org/ Contact Martha at AMSAT HQ if you can help! 301-589-6062, or e-mail martha@amsat.org.

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-041.08
ARISS Status Report For The Week of February 4, 2008

AMSAT News Service Bulletin 041.08
>From AMSAT HQ SILVER SPRING, MD.
February 10, 2008
To All RADIO AMATEURS
BID: $ANS-041.08

1. ARISS School Contacts - Status

Due to crew schedules onboard the ISS, no ARISS contacts are planned at this time. The ARISS team expects contacts to resume once STS-122 launches in early February.

2. Glenden State School Receives Award for ARISS Contact

An ARISS contact took place between Glenden State School in Queensland, Australia and Sunita Williams, KD5PLB, on April 4, 2007. On January 26, 2008 the school was presented with an Australia Day Award in recognition of the contact. The mayor who bestowed the award noted that the contact was a very unique educational outreach activity in which the community became involved. ARISS member Shane Lynd, VK4KHZ, submitted an article covering this news to the Wireless Institute of Australia. The story and photos have been posted under News on the ARISS Website. See: http://www.rac.ca/ariss/oindex.htm

3. Astronaut Training Status

On Tuesday, January 29, Mike Barratt, KD5MIJ, participated in an ARISS training session at JSC. Basic radio operations and school contacts were covered during the class. Barratt is a backup crewmember for Expedition 18, and the prime Flight Engineer for Expedition 19A.

ARISS conducted an amateur radio school contact simulation utilizing a local school. Students at Bay Area Charter Elementary near JSC took part in 2 sessions on Friday, February 8 at approximately 9:45 am and 10:10 am CT via the JSC W5RRR repeater. Mike Fincke, KE5AIT, participated in the first contact and Koichi Wakata, KC5ZTA, participated in the second simulated contact. These two contacts were retransmitted on the Internet Radio Linking Project (IRLP) and the W5RRR repeater. This is the first time a school contact simulation training session has been conducted live with students at the other end of the session. If successful, it might

be possible to conduct a handful of these sessions each year.

4. ARISS Radio Configured in Crossband Repeater Mode

On Thursday, January 31, cosmonaut Yuri Malenchenko, RK3DUP, configured the ARISS Kenwood radio to crossband repeater mode. The frequencies are 437.800 MHz uplink and 145.800 MHz downlink.

5. ARRL Article on ARISS Chairman

The American Radio Relay League (ARRL) ran an article on ARISS Chairman Frank Bauer in its ARRL Letter. To view the story, "ARISS International Chairman Moves into New Position at NASA," see: http://www.arrl.org/arrlletter/08/0201/

6. SuitSat-1 Certificates

The ARISS team has begun to distribute certificates for participation in the SuitSat-1 project. Additional certificates will be mailed as participant lists are received. SuitSat-1, an amateur radio satellite housed in a Russian Orlan spacesuit, was deployed on February 3, 2006 and received extensive media coverage and over 9.5 million hits on the SuitSat Web site.

[ANS thanks Carol, KB3LKI for the above information]

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In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

73,
This week's ANS Editor,
JoAnne Maenpaa, K9JKM
K9JKM at amsat dot org